Bodie Mountain

CA-010-099

BODIE MOUNTAIN WILDERNESS STUDY AREA (WSA)

(CA-010-099)

1. THE STUDY AREA --- 25,944 acres

The Bodie Mountains WSA is located in northeastern Mono County, approximately one mile west of Bridgeport, California. The WSA includes 23,934 acres of Bureau of Land Management (BLM) land, 2,010 acres of private inholdings, and no State land (see Map 1 and Table 1).

The northern boundary of the WSA follows the Aurora Canyon county road, easterly skirting around an old material site and later on, private lands. At a ranching road, the boundary turns south and proceeds southeasterly until it reaches Bodie Road (State Highway 270). The boundary turns west and continues along this road. The boundary goes around private land as well as two cherrystemmed roads that lead to private inholdings. The boundary road heads north near U.S. Highway 395 and mostly follows private land and the Travertine Hot Springs Road until it intersects the Aurora Canyon county road.

The WSA occupies the west-central region of the Bodie Hills, which lie on the western margin of the Basin and Range geomorphic province, adjacent to and slightly within the eastern periphery of the Sierra Nevada geomorphic province. The WSA consists of rolling to steep and rocky volcanic hills with numerous canyons, interior drainages, low volcanic mesas, and some meadows. The elevation of surface features ranges from 7,500 feet in Big Alkali Basin to 9,300 feet along the eastern boundary of the unit. Big Alkali, thought to be a volcanic caldera, occupies the center of the unit. Big Alkali contains several hot springs and a sizeable wetland area. Additional springs are located in the WSA. Clark Canyon Creek is a perennial water source supporting trout. Vegetation is variable within the unit. Dominant throughout is grassland and various Great Basin shrub species. Pinyon-Juniper stands are prevalent along the western half of the WSA. Riparian corridors support dense stands of quaking Aspen. The unit's combination of natural features provides numerous scenic and picturesque vistas. The WSA occupies one of the more scenic portions of the Bodie Hills.

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA). Various suitability recommendations were analyzed in the Draft and Final Environmental Impact Statements (EIS) for the Benton-Owens Valley/Bodie-Coleville Wilderness Study Areas. A summary of the area's wilderness values was included in the Final EIS. Three different suitability recommendations were analyzed in the EISs: all wilderness, partial wilderness recommending 57% of the area suitable, and no wilderness.

2. RECOMMENDATION AND RATIONALE --- 0 acres recommended for wilderness

23,934 BLM acres recommended for non-wilderness

No wilderness is the recommendation for this WSA. The entire acreage in this WSA is released for uses other than wilderness. The all-wilderness alternative is considered to be the environmentally preferred alternative as it would result in the least change from the natural environment over the long term. The no-wilderness alternative will be implemented in a manner which will use all practical means to avoid or minimize environmental impacts.

The WSA is recommended non-suitable because of its potential for mineral occurrence, motorized recreation needs, anticipated wildlife habitat improvement and livestock forage increases. Together with potential emergency realignment needs for adjoining State Highway 270, these aspects outweigh the area's wilderness values. Manageability was an additional consideration in the non-suitable consideration.

At the time the FEIS was published in 1987, resource conflicts in the WSA included moderate to high metallic mineral potential in Cinnabar and Hot Springs Canyons, moderate nonmetallic (sulphur) mineral potential in Cinnabar Canyon, moderate nonmetallic mineral potential for sand and gravel along the WSA's northwestern edge, and moderate to high geothermal potential throughout the WSA. The WSA contains approximately 305 mining claims. Mining claims in Cinnabar Canyon and Hot Springs Canyon have a moderate to high probability for determination of valid existing rights. Homestake Mining Company, U.S. Steel, and Amselco Mining Company have conducted active exploration in the Cinnabar Canyon area. A portion of the WSA contains pending geothermal lease applications. Geothermal development potential is high in the Travertine Hot Springs area and moderate in the majority of the WSA.

A 75-acre vegetative treatment (a prescribed burn) is proposed in Hot Springs Canyon to improve wildlife habitat and to increase livestock forage. The treatment has been prescribed because the existing plant community has reached a climax condition precluding the growth of a herbaceous understory which provides forage and cover for most wildlife species. Approximately 30 AUMs of additional forage would be provided for cattle. This vegetative treatment would be prohibited if the area is designated wilderness.

The WSA sustains and provides some suitable opportunities for motorized recreational use. Approximately 16 miles of primitive vehicle route are located in the WSA. The WSA is used by local snowmobilers during winter months. Hunters and sightseers use the primitive vehicle routes during non-winter months. Additionally, the Modesto Ridgerunners use these routes for their annual four-wheel drive poker rally sightseeing activity. It is expected that demand and use of this area for motorized recreational activities will continue.

State Highway 270 comprises portions of the WSA's southern boundary. This paved road is used regularly and frequently by tourists who visit nearby Bodie State Historic Park. Under emergency conditions such as flash flooding or road washouts, it could be necessary to reroute State Route 270 up to 200 feet into the WSA.

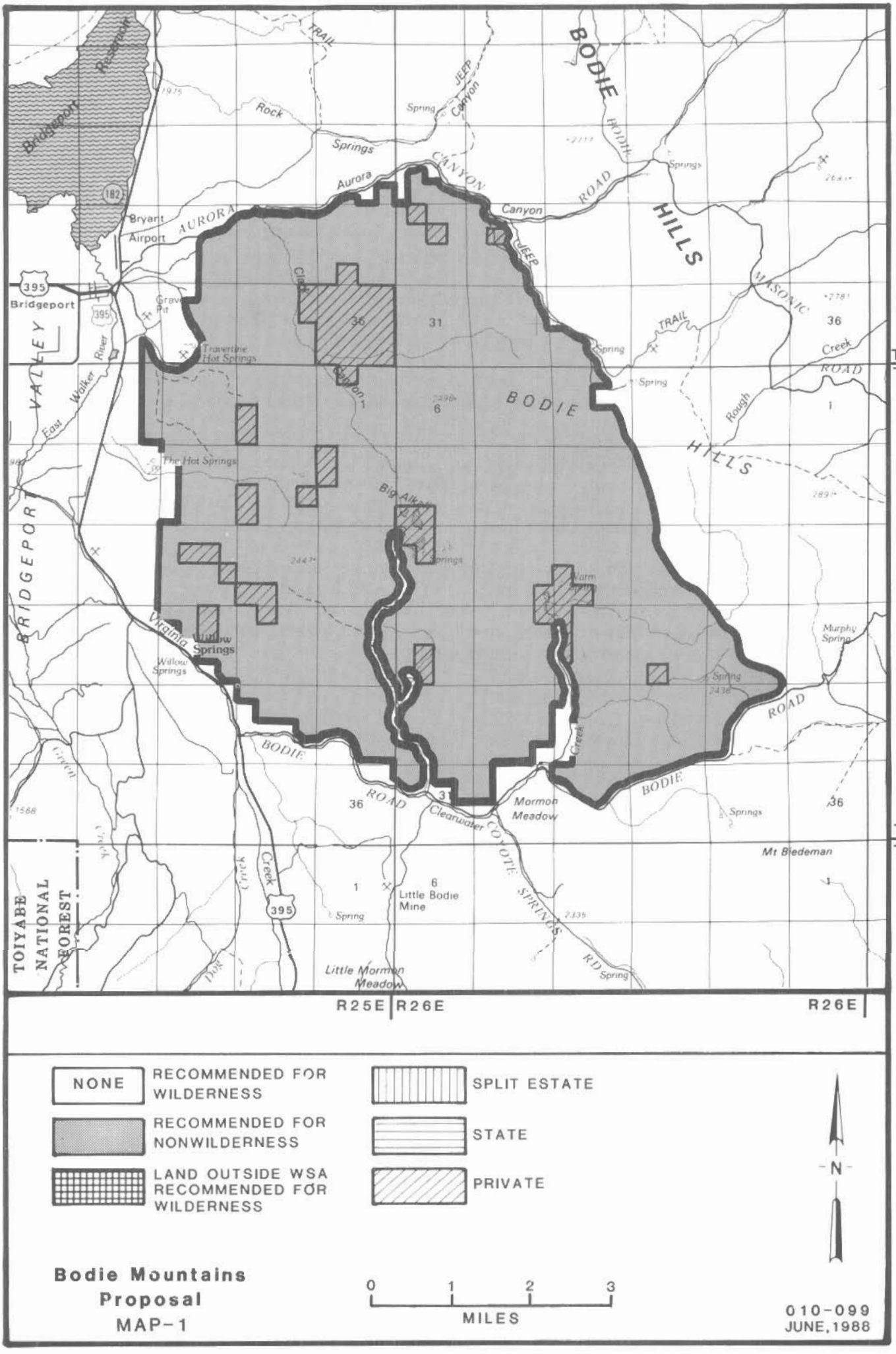
Manageability was a secondary factor in the non-suitable recommendation. The primary manageability limitation consists of the numerous private inholding parcels located throughout the WSA as well as the two southern cherrystemmed roads that lead to private land in the WSA. Finally, the potential for determination of valid existing rights associated with some mining claims in areas of favorable mineral occurrence may completely impede manageability.

TABLE 1 - Land Status and Acreage Summary of the Study Area

Within Wilderness Study Area		Acres
BLM	(surface and subsurface)	23,934
Split Estate	(BLM surface only)	0
Inholdings		
State		0
Private		2,010
Total		25,944

Within the Recommended Wilderness Study Boundary		Acres
BLM	(within WSA)	0
BLM	(outside WSA)	0
Split Estate	(within WSA)	0
Split Estate	(outside WSA)	0
Total BLM Land Recommended for Wilderness		0
Inholdings		
State		0
Private		0

Within the Area Not Recommended for Wilderness		Acres
BLM	(surface and subsurface)	23,934
Split Estate	(BLM surface only)	0
Total BLM Land Not Recommended for Wilderness		23,934


BODIE HILLS
BRIDGEPORT VALLEY
TOIYABE NATIONAL FOREST
Bridgeport Reservoir
Bridgeport
Bryant Airport
AURORA CANYON ROAD
Aurora Canyon
Rock Springs
JEEP TRAIL
BODIE ROAD
MASONIC ROAD
Travertine Hot Springs
Fly Hot Springs
East Walker River
Big Alkali Spring
Virginia Creek
Willow Springs
Willow Springs
BODIE ROAD
Clearwater Creek
Mormon Meadow
COYOTE SPRINGS RD
Little Bodie Mine
Little Mormon Meadow
Mt Biedeman
Murphy Spring
Rough Creek
Dog Creek
Alarm
Spring
Springs
395
182
T5N
T4N
T3N
R25E
R26E
R26E
NONE
RECOMMENDED FOR WILDERNESS
RECOMMENDED FOR NONWILDERNESS
LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS
SPLIT ESTATE
STATE
PRIVATE
N
0 1 2 3
MILES
Bodie Mountains Proposal
MAP-1
010-099
JUNE, 1988

3. CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATIONS

A. Wilderness Characteristics

1. Naturalness: Overall, the unit's naturalness has been well maintained. The WSA consists of rocky volcanic hills with numerous canyons, volcanic mesas, and some meadows. Elevation ranges from 7,500 feet to 9,300 feet. Big Alkali Basin, believed to be a volcanic caldera, occupies the center of the WSA and appears as a soft-colored grassy meadow complex enclosed by a ring of small tree-covered hills. Numerous springs are located in the unit. Hot Springs and Clark Creek Canyons are especially scenic.

   The western half of the WSA contains a pinyon-juniper woodland with big sagebrush in the bottomlands. In the northeastern corner there are numerous stands of quaking aspen. The WSA's eastern half is rolling mountainous terrain with the bottoms and sideslopes covered with big sagebrush, bitterbrush, and perennial grasses. Low sagebrush is found on the ridgetops and as interspersed islands within the big sagebrush. The WSA contains a sphagnum peat bog which is unusual for this area.

   Although there are cherrystemmed roads which penetrate the WSA from the southern boundary, the unit's large size and extremely diverse terrain screen these intrusions. Excessive livestock use in some wetland areas has degraded site conditions. In Clark Canyon, gabions have been constructed to correct unnatural site conditions. In addition, other evidence of man's influence include approximately 16 miles of vehicle routes, a pipeline, six fences, two reservoirs, and mining claims. These features are substantially unnoticeable in the WSA as a whole.

2. Solitude: The unit's blend of physiographic variation, vegetative screening, and extensive size provides the visitor with outstanding opportunities for solitude. Isolation can be easily found within most of the WSA. The use of cherrystemmed roads would impair opportunities for solitude along southern portions of the unit.

   This WSA is periodically overflown by military aircraft as part of the national defense mission taking place in approved military operating areas and flight corridors. The visual intrusions and associated noise create periodic temporary effects on solitude which are deemed necessary and acceptable as a part of the defense preparedness of the nation.

3. Primitive and unconfined recreation: The primeval and diverse nature of the unit's natural character provides visitors with outstanding opportunities to participate in primitive and unconfined recreational activities. Visitors can participate in activities such as backpacking, cross-country skiing, nature appreciation, scenic photography, camping, horseback riding, etc.

4. Special features: The area contains diverse features of special interest. Historic features associated with Bodie State Historic Park include the first transmission line to transport electricity over a long distance and a Chinese settlement. The WSA lies in the heart of the Bodie Hills obsidian source, and most of the sites occurring here are associated with prehistoric obsidian collection.

   The unit also contains two small populations of Phacelia monoensis, a candidate species for the U.S. Fish and Wildlife Service sensitive plant list. The WSA contains a unique sphagnum peat bog which is 60 feet in diameter and in excellent condition.

   The WSA provides habitat for several wildlife species such as sage grouse, a recovering species of game birds that has been historically over-harvested; mule deer and pronghorn antelope which rely on this intact natural environment for forage and cover. The unit serves as crucial nesting habitat for sage grouse as well as crucial habitat for deer and pronghorn fawning. Waterfowl are also in the unit.

B. Diversity in the National Wilderness Preservation System (NWPS)

1. Assessing the diversity of natural systems and features as represented by ecosystems: This WSA contains 12,740 acres of the Intermountain Sagebrush/Great Basin Sagebrush and 11,194 acres of the Intermountain Sagebrush Juniper-Pinyon woodlands ecosystem. The Bodie Mountains WSA would not increase the diversity of the types of ecosystems represented in the NWPS.

Table 2 - Ecosystem Representation

Bailey-Kuchler Classification Domain/Province/PNV	NWPS Areas areas	NWPS Areas acres	Other BLM Studies areas	Other BLM Studies acres
		NATIONWIDE		
Intermountain Sagebrush/ Great Basin Sagebrush	1	32,407	55	1,192,525
Juniper-Pinyon Woodland	4	81,301	74	2,140,109
		CALIFORNIA		
Intermountain Sagebrush/ Great Basin Sagebrush	0	0	19	208,059
Juniper-Pinyon Woodland	3	61,701	18	354,639

2. Expanding the opportunities for solitude or primitive recreation within a day's driving time (five hours) of major population centers: The WSA is within a five-hour drive of nine major population centers. Table 3 summarizes the number and acreage of designated areas and other BLM study areas within a five-hour drive of the population centers.

Table 3 - Wilderness Opportunities for Residents of Major Population Centers

Population Centers	NWPS Areas		Other BLM Studies	
	areas	acres	areas	acres
California				
Chico	16	1,286,873	13	430,822
Fresno	35	4,048,852	28	460,790
Merced	33	3,957,550	25	348,753
Modesto	36	4,126,963	81	1,722,326
Sacramento	46	5,001,817	87	2,479,541
Stockton	35	4,061,833	46	601,496
Vallejo-Napa-Fairfield	44	4,832,667	74	2,100,862
Yuba City	44	4,951,805	85	2,459,500
Nevada				
Reno	39	4,647,230	170	6,904,809

3. Balancing the geographic distribution of wilderness areas: The WSA is within 50 air miles of one BLM WSA recommended for wilderness designation. The Hoover Wilderness, 15 miles to the west, is the nearest designated wilderness area. This wilderness area is administered by the Toiyabe and the Inyo National Forests. Other nearby designated wilderness areas include Yosemite National Park which is managed by the National Park Service, the Ansel Adams Wilderness is managed by the Inyo National Forest, and the Carson-Iceberg Wilderness which is managed by the Toiyabe National Forest.

C. Manageability

Although the area is manageable as wilderness, it may be difficult due to the numerous private parcel inholdings scattered in the unit. Although no developments are foreseen on these private parcels, incompatible uses on these areas could limit future wilderness management. The two southern cherrystemmed roads that lead to private inholdings are used by miners and livestock operators and present an additional limitation to effective wilderness management.

Finally, the WSA may be altogether unmanageable as wilderness if mining claims in areas of moderate to high mineral occurrence (Hot Springs and Cinnabar Canyons) result in a determination of valid existing rights for mining claimants. The probability is moderate to high that this may occur. Wilderness values of naturalness, solitude and opportunities for primitive recreation experiences would be permanently impaired if these mining claims are developed.

Some signing, patrolling and fencing of the WSA would be required to maintain the area's natural integrity. Purchase of the private inholdings would be needed in order to enhance wilderness manageability.

D. Energy and Mineral Resource Values

1. Summary of information known at the time of the preliminary suitability recommendation: The Bodie Mountains WSA is within the BLM Bodie Geology - Energy - Minerals (G-E-M) Resource Area (GRA). The G-E-M data as supplemented by the Analysis of Management Situation (WSA File #CA-010-099, 1984). This data is summarized in the Affected Environment section of the 1987 Wilderness Recommendations Benton-Owens Valley/Bodie-Coleville Study Area EIS. The EIS states that the WSA has potential for occurrence of gold, sulphur, mercury, antimony and geothermal resources.

The supplemented G-E-M data indicate that the WSA has an area of high potential for metallic minerals in the southern portion of the WSA, and an area of moderate potential in the western portion of the WSA.

The southern area (Cinnabar Canyon) is rated as having a high potential for the occurrence of gold (Au), mercury (Hg), antimony (Sb) and sulphur (S). This rating is based in part on the presence of the Wedertz Quicksilver Mine (or Cal-Mono Mine) in Cinnabar Canyon. This property produced a small amount of mercury in the early 1900s, however, production records were not found. A large quantity of massive stibnite (antimony ore) also occurs in this area. Homestake Mining Company first started exploring this area for gold in 1980. By 1984, they had completed 2,768 feet of exploration drill holes. Although gold was present, no ore grade precious metal concentrations were found during this exploration. Instead, high grade native sulphur mineralization was discovered. Sulphur is a nonmetallic locatable mineral.

The western area (Hot Springs Canyon) is rated as having a moderate potential for the occurrence of gold. This rating is based on the large area of rock alteration in this area with some gold values associated with it. At the time of recommendation, Homestake Mining Company was actively pursuing this target.

As of spring 1986, 348 unpatented mining claims were located within the WSA.

There is a small area of moderate potential for the nonmetallic minerals sand and gravel along the western edge of the WSA. This classification is based on the known presence of sand and gravel in this area, although the quality and useability of this material is unknown. This small area is not mentioned in the EIS. Homestake Mining Company's discovery of elemental sulphur in

Cinnabar Canyon (mentioned above) resulted in the classification of the Cinnabar Canyon alteration zone as moderate for non-metallics.

Most of the WSA has a high potential for geothermal resources. The portion of the WSA not having high potential is classified as having moderate potential (northeast edge). These ratings are based on the abundance of hot springs and wells in the area and the strong evidence of favorable geologic environments. This area is shown to be prospectively valuable for geothermal resources. ("Lands Valuable for Geothermal Resources", C.H. Godwin and others, USGS unpublished map, updated July 1985).

Geothermal-production well-drilling in the Travertine Springs area has intersected a thermal reservoir hot enough for direct heating applications and possibly hot enough for a small amount of electrical generation. The moderate potential area is in the same favorable geologic environment as described above. The EIS states that a substantial portion of the WSA contains pending geothermal lease applications.

2. Summary of significant new mineral data collected since the suitability recommendation which should be considered in the final recommendation: No U.S. Bureau of Mines (BOM) or U.S. Geological Survey (USGS) mineral reports were prepared for this WSA. There are five geothermal applications covering 6,643 acres of the WSA. A portion of the KGRA exists in the WSA and occupies 300 acres.

Homestake Mining Company submitted additional information regarding their Cinnabar Canyon, Hot Springs Canyon, and Potato Peak prospects in May of 1988. The accompanying map shows areas of altered mineral occurrence potential based on additional data received since the FEIS was printed in 1987.

Cinnabar Canyon

As stated in Section D.1., Homestake discovered a deposit of elemental sulphur in 1983 and 1984 while exploring for precious metals in the area. Amselco, a mining corporation, then entered into a partnership on this property. During August of 1986 through January 1987, Amselco completed an additional 7,715 feet of evaluation drilling. Soil and rock sampling, and geological mapping were also done during this time. The data indicate a moderately continuous northwest-trending sulphur lens, measuring about 900 feet wide, at least 1,800 feet long and over 200 feet thick. Over 15 million tons of 18%+ elemental sulphur is estimated.

Based on this data, the classification of the Cinnabar Canyon alteration zone is increased from moderate to high potential for occurrence of non-metallics (sulphur).

Homestake renewed their interest in the Hot Springs Canyon alteration zone after the discovery of the Cinnabar Canyon sulphur deposit. No confirmation drilling has been done yet, but, the alteration geochemistry indicates a strong similarity to and perhaps a connection with the Cinnabar Canyon deposit. Based on this data, the classification of the Hot Springs Canyon alteration zone is increased from low to moderate potential for occurrence of non-metallics (sulphur).

Potato Peak

Homestake completed 1,600 feet of exploration drilling (eight holes) in the area in 1986. Results indicate a cloud of a few tenths ounces/ton gold below and around the surface geochemical anomaly. Rare assays of a few tenths ounces/ton gold were present and one five foot interval assayed 0.128 ounces/ton gold. The surface anomaly and area of drilling are outside the WSA and are confined to a small area approximately 1,500 feet by 1,000 feet. The above data is not enough to change the existing classification of low potential of occurrence for metallics within this portion of the WSA.

A review of BLM records in May of 1988 indicate that approximately 50% of the WSA is still covered by geothermal lease applications.

The distribution of unpatented mining claims in the WSA is summarized in the following table taken from BLM records dated May, 1988:

Table 4 - Mining Claims

TYPE	NO. SUITABLE	NO. NONSUIT.	NO. TOTAL	ACRES SUITABLE	ACRES NONSUIT.	ACRES TOTAL
Mining Claims						
Lode	0	300	300	0	6,000	6,000
Placer	0	5	5	0	20	20
Mill Sites	0	0	0	0	0	0
Total	0	305	305	0	6,200	6,200

E. Impacts on Resources

The following table summarizes the effects on pertinent resources for all alternatives considered including designation or non-designation of the entire area as wilderness. (For a full explanation of this summary, refer to the Benton-Owens Valley/Bodie-Coleville Wilderness - Final Environmental Impact Statement.)

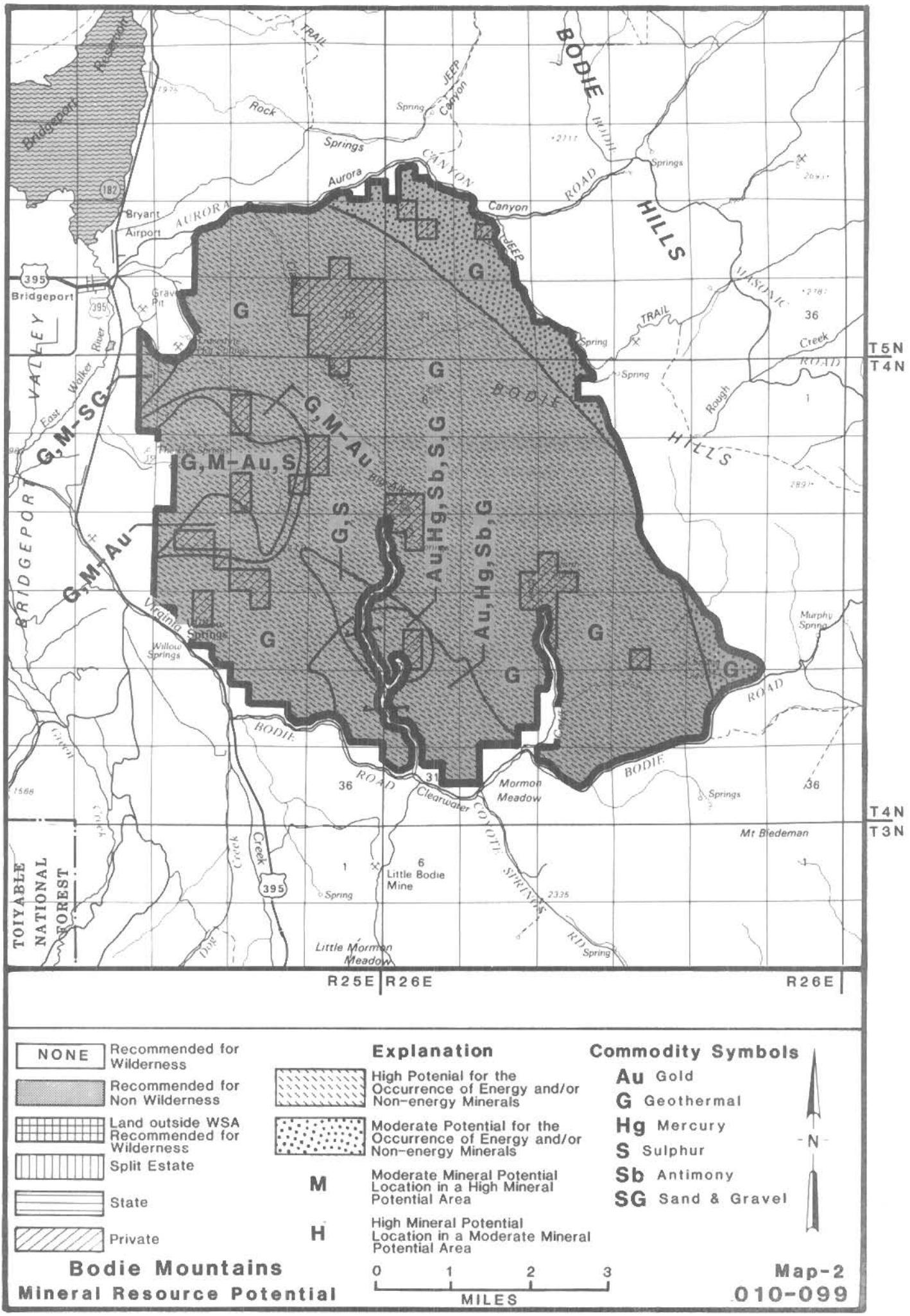

BODIE HILLS
BRIDGEPORT VALLEY
TOIYABLE NATIONAL FOREST
G
G,M-SG
G,M-Au,S
G,M-Au
G,S
Au,Hg,Sb,S,G
Au,Hg,Sb,G
Bridgeport
Bryant Airport
Aurora Canyon
Rock Springs
Jeep Trail
Bodie Road
Willow Springs
Virginia Springs
Mormon Meadow
Clearwater
Little Bodie Mine
Little Mormon Meadow
Coyote Springs
Murphy Spring
Mt Biedeman
Rough Creek
East Walker River
395
182
T5N
T4N
T4N
T3N
R25E
R26E
R26E
NONE Recommended for Wilderness
Recommended for Non Wilderness
Land outside WSA Recommended for Wilderness
Split Estate
State
Private
Explanation
High Potenial for the Occurrence of Energy and/or Non-energy Minerals
Moderate Potential for the Occurrence of Energy and/or Non-energy Minerals
M Moderate Mineral Potential Location in a High Mineral Potential Area
H High Mineral Potential Location in a Moderate Mineral Potential Area
Commodity Symbols
Au Gold
G Geothermal
Hg Mercury
S Sulphur
Sb Antimony
SG Sand & Gravel
N
0 1 2 3
MILES
Bodie Mountains
Mineral Resource Potential
Map-2
010-099

Table 5 - Comparative Summary of the Impacts by Alternative

ISSUE-RELATED RESOURCES	PROPOSED ACTION (NO-WILDERNESS/NO ACTION)	ALL-WILDERNESS ALTERNATIVE	PARTIAL-WILDERNESS ALTERNATIVE
Wilderness Values*	The primary impacts to wilderness values would originate from projected mineral development activities expected to occur in the Cinnabar Canyon area and geothermal development in the western quarter of the WSA. An open-pit sulphur mine and a geothermal power facility would disturb 460 acres of surface and directly impair naturalness, solitude, primitive and unconfined recreation, and some special features of the WSA. A proposed vegetative treatment (probably a prescribed burn) and physical improvement of two primitive vehicle routes would adversely impact naturalness and solitude to varying degrees. In addition, potential emergency realignment needs for State Route 270 would necessitate repair and rerouting of the road into the WSA resulting in adverse effects to naturalness and solitude.	The net effect of the management actions under the All Wilderness Alternative would be a slight to moderate enhancement of long-term protection to wilderness values. Closure of the area to motor vehicle use, prohibition of physical improvements to existing vehicle routes, prohibition of geothermal development, prohibition of potential emergency realignment needs for State Route 270, and a decrease in vehicle use associated with fuelwood cutting, wetland habitat improvements, pinyon nut collection, and grazing operations would provide some benefits to the area's wilderness values. Foregone geothermal development would provide the greatest benefits to wilderness. It is anticipated that the high probability of valid existing rights determination for mining claims in Cinnabar Canyon would result in development of an open-pit sulphur mine. As a result, wilderness values of naturalness, solitude, primitive and unconfined types of recreation, and special features would be adversely impacted on 420 acres in Cinnabar Canyon.	Designation of the 9,790 acres as wilderness would primarily result in low benefits to the area's wilderness values particularly to naturalness and solitude due to the elimination of 400 annual visitor use days related to motor vehicle access, enhancement of wetland values of three springs and one meadow, the slight reduction of vehicle use related to grazing operations and maintenance of some grazing facilities, the prohibition of physical improvements to 1-3/4 miles of a primitive vehicle route in the designated area's southwestern portion, and the prohibition of fuelwood cutting on 300 acres of accessible pinyon-juniper woodland. On the other hand, the high probability of determining valid existing rights for mining claims in Cinnabar Canyon would probably result in a 420-acre open-pit sulphur mine in this area. As a result, this operation would adversely impact naturalness, solitude, primitive and unconfined types of recreation, and special features in a localized area of the unit.

*Since the last summary table was prepared, new minerals data has been obtained from Homestake Mining Co. which may affect the degree of impacts to wilderness values. Refer to the Minerals section of this document.

Table 5 - Comparative Summary of the Impacts by Alternative

ISSUE-RELATED RESOURCES	PROPOSED ACTION (NO-WILDERNESS/NO ACTION)	ALL-WILDERNESS ALTERNATIVE	PARTIAL-WILDERNESS ALTERNATIVE
			On the 16,685 acres not designated as wilderness, there would be high adverse impacts to wilderness values from the projected development of a 40-acre geothermal power facility in the western quarter of the WSA, particularly around the Travertine Hot Springs area. In addition, there would be less significant adverse impacts to wilderness values from potential emergency needs for realignment of State Route 270 along a corridor 200 feet north of the boundary road. Fuelwood cutting, motorized vehicle access and physical improvements to a primitive vehicle route (1 1/4 miles) would be allowed resulting in additional adverse impacts to wilderness values of naturalness and solitude.
Motorized Recreation Use	There would be no impacts on motorized recreation use as the entire WSA would remain open for use. Motorized recreation use is anticipated to remain stable at the current 900 visitor days.	Wilderness designation would close the entire 25,944 acres within the WSA to motorized recreation use and eliminate 900 visitor use days. Impacts on motorized recreation use would be minor due to opportunities available outside the WSA.	The impacts on motorized recreation use would be minor due to opportunities outside the WSA as well as increased use of the non-wilderness portion of the WSA. While 400 visitor days would be eliminated from the designated area, an increase of 200 visitor days of motorized recreation use is projected for the non-wilderness portion.
Geothermal Resource Development	There would be no impacts on geothermal resource development. The entire WSA would be available for geothermal development including a projected 10-Mw resource.	Exploration and development of geothermal resources within the WSA, including a potential 10-Mw resource, would be foregone. Over the long term this would result in less than a minor impact.	Precluding geothermal resource development on the 9,790 acres of the WSA designated wilderness would result in only a negligible impact with no projected development foregone. Geo-

Table 5 - Comparative Summary of the Impacts by Alternative

ISSUE-RELATED RESOURCES	PROPOSED ACTION (NO-WILDERNESS/NO ACTION)	ALL-WILDERNESS ALTERNATIVE	PARTIAL-WILDERNESS ALTERNATIVE
			thermal exploration and development could occur within the remaining 9,790 acres of the WSA not designated wilderness which includes a potential 10-Mw resource. There would be no impact on geothermal resource development within the nonwilderness portion of the WSA.
Cultural Resources	Surface-disturbing activities associated with potential geothermal development would likely only result in minor impacts to cultural resources in areas of predicted very high sensitivity. Surface inventories to develop mitigation measures to minimize impacts would be required.	There would be minor positive benefits to cultural resources due to precluding geothermal resource development and continued motorized recreation use.	In the 9,790 acres of the WSA not designated wilderness, surface-disturbing activities associated with geothermal resource development would likely only result in minor impacts to cultural resources. Surface inventories would be required to develop mitigation measures to minimize impacts. There would be a low positive benefit to cultural resources within the 16,685 acres designated wilderness.
State Route 270 Realignment	Realignment of State Route 270 could occur into the WSA. There would be no impacts on the realignment of State Route 270.	Wilderness designation would limit opportunities and increase costs for emergency realignment of State Route 270 by precluding use of the WSA. This would result in a potential moderate adverse impact.	There would be no impact on the realignment of State Route 270. The Partial Wilderness Alternative boundary establishes a 200-foot-wide corridor along 3 1/2 miles of the roadway for reconstruction. The remaining 1 1/4 miles follow the WSA boundary along the nonwilderness portion and would not be impacted.

F. Local Social and Economic Considerations

No local social or economic considerations were identified in the Final EIS. Therefore, no further discussion of this topic will occur in this document.

G. Summary of WSA - Specific Public Comments

During the inventory phase, a few comments addressed mineral values and geothermal potential. Several other comments supported wilderness designation of the area, noting flora, fauna, scenic views, and other special features.

After the inventory, several comments were received during the wilderness study process. A few comments identified high geothermal values in the area and others noted a favorable geologic environment for mineral deposits. One comment indicated that non-public inholdings and access routes negated wilderness values. A rancher expressed the need for access to his grazing operations.

During the study phase, a public meeting and public hearing were held in association with the draft EIS. The public meeting was held in Markleeville, California and the public hearing in Bishop, California. Comments were received both orally through the hearing and in writing during the 90-day public review period. A total of 80 written and oral comments were received. Thirty-one comments supported the Bureau's no-wilderness recommendation, forty-two comments supported the all-wilderness alternative, and seven comments supported the partial-wilderness alternative.

No comments specific to the Bodie Mountains WSA were received from Federal agencies.

The California Department of Transportation has expressed the potential need for realignment of State Highway 270 (Bodie Road) during reconstruction to meet State standards.

During the inventory, Mono County expressed a need for multiple use of the area.